

Variability of languages in time and space

Lecture 9: Language universals

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Language universals or linguistic universals

Greenberg (1963:255)

“Language universals are by their very nature summary statements about characteristics or tendencies shared by all human speakers. As such they constitute the most general laws of a science of linguistics (as contrasted with a method and a set of specific descriptive results). Further, since language is at once both an aspect of individual behaviour and an aspect of human culture, its universals provide both the major point of contact with underlying psychological principles (psycholinguistics) and the major source of implications for human culture in general (ethnolinguistics).”

Noam Chomsky

- Universal Grammar
- **linguistic universals** are innate
- an in-depth understanding of one language (English) sufficient

Hockett (1963:1)

“[...] we do not want to invent language universals but to discover them. How to discover them is not so obvious.”

Types of universals (Greenbergian approach)

- phonological vs morphological vs syntactic (etc.) universals
 - according to the language level the universal refers to
- absolute vs statistical universals
 - presence vs non-presence of a universal in languages
- implicational vs unconditional universals
 - if referring reference to another property and language, or not

Absolute vs statistical universals

- absolute universals
 - without exception, e.g.
 - all languages have vowels
 - every language has at least two vowels
 - for all languages the number of phonemes is not fewer than 10 or more than 70

Greenberg (1976:9)

“for a statement about language to be considered fully general it is sufficient that it has as its logical scope the set of all languages”

Comrie (1981:19)

“those that are exceptionless, and those that exist as tendencies, but do still have exceptions” (tendencies as “statistical significant deviation from random patterning”; an absolute universal = “just the extreme case of deviation from random distribution”)

Statistical (vs absolute) universals

Greenberg (1963)

“If a language has a particular characteristic ϕ , it has a significantly greater probability of possessing some other characteristic ψ than if it does not possess ϕ .”

- for any language, a feature is more probable than some other
 - e.g. a language with gender distinction in the 2nd person sg also has its distinction in the 3rd person sg but not vice versa (but languages in central Nigeria with the distinction in the 2nd person, but not in the 3rd)
- the number of languages in the samples analysed is usually low (tens of languages)

Implicational vs unconditional universals

- implicational universals
 - one-way relationship between two characteristics, e.g.
 - if a language has dual, it also has a category of plural but not necessarily vice versa

Greenberg (1963:259)

“If a language has a certain characteristic, (ϕ), it also has some other particular characteristic, (ψ), but not vice versa. That is, the presence of the second characteristics (ψ) does not imply the presence of the first one (ϕ).”

- unconditional universals
 - the existence of a feature is not conditioned by another characteristic, e.g.
 - all languages have vowels
 - for all languages the number of phonemes is not fewer than 10 or more than 70

- a project by Frans Plank & Elena Filomonova et al., Konstanz Uni
- universals in individual language domains (overlapping)
 - phonology, morphology, inflection, syntax, semantics, lexicon, etc.
- rara (pl. of *rarum* == rarity)
 - the opposite to universals: a feature found in a few members of a single language family or Sprachbund
 - *rarissimum* as the extreme case
- on the Internet since 1999

<https://typo.uni-konstanz.de/rara/category/universals-archive/>

- Rarissimum 78:
expression of numerical approximation ('about 5', 'about the fifth') by inversion of word order from Numeral+Noun to N+Num [Russian and other East Slavic langs]
- Rarissimum 122:
a definite article formally distinct from (one form or another of) any kind of pronoun – demonstrative, personal (free, clitic, or bound), possessive, relative, interrogative [Modern English]

Universals in the *Universals Archive*: absolute & implic.

- Universal 116 (inflection & absolute & implication):
IF there is the category of case, THEN there is also the category of number.
- Universal 430 (inflection & absolute & implication):
IF there is a singular-plural distinction in the 2nd and/or the 3rd person of personal pronouns, THEN there is a singular-plural distinction in the 1st person.
- Universal 1181 (lexicon & absolute & implication):
IF there is a separate term for 'foot', THEN there is also one for 'hand'.
- Universal 1939 (word-formation & absolute & implication):
IF words of whatever word class can be derived from nouns, THEN nouns can be derived from words/stems other than nouns.
- Universal 120 (infl+syntax & absolute & no genuine impl., rather provided that):
IF NP-internal constituents agree in more than two categories (the maximum being four), THEN those will always include number and gender and very likely also case.
- Universal 278 (infl & ?absolute & no genuine implication, rather provided that):
IF one of the forms of the imperative coincides with a pure (non-inflected, zero-marked) root, THEN its meanings include that of 2nd person singular.
- Universal 546 (infl+word-formation & absol. & no genuine impl., rather provided that):
IF plural marking on nouns is optional, THEN the singular may be used on nouns in construction with numerals higher than 1.

Universals in the *Universals Archive*: absolute & uncond.

- Universal 499 (syntax & ?absolute & unconditional):
In conditional statements, the conditional clause precedes the conclusion as the normal order in all languages.
- Universal 515 (inflection & absolute & unconditional):
All languages have pronominal categories involving at least three persons and two numbers.
- Universal 1320 (lexicon & absolute & unconditional):
Among the deictic elements of every human language is one that denotes the speaker and one that denotes the addressee.
- Universal 1496 (lexicon & absolute & unconditional):
The upper limb, 'arm' (and 'hand') is named by a distinct term in all languages.

- Universal 388 (inflection & statistical & mutual implication):
IF there is no inflectional gender, THEN morphology is agglutinative, and vice versa.
- Universal 1431 (inflection & statistical & implication):
The more developed a case system is, the less is its system of verbal tenses.
- Universal 1435 (inflection & statistical & mutual implication):
IF there is no aspect differentiation, THEN there are continuous tenses.

- Universal 701 (word-formation & statistical & unconditional):
The base number tends to be put before the unit, and in general a higher number before a lower, when they are conjoined.
 - Counterexamples: Teens in English (*fourteen*), the teens and decades in German (*vierzehn* (14), *vierundzwanzig* (24)), Sanskrit (*trayo-dasa*), Latin (*tre-decim*), Irish (*tri-deec*), all meaning 13 (mentioned in Stampe 1976).

Evans & Levinson (2009:431):

“The crucial fact for understanding the place of language in human cognition is their diversity.”

- scepticism to the existence of language universals
- information about 10 % languages out of 7k+
- average language death-rate: one language every two weeks
- most generalizations based on 500 languages

Recommended

- UFAL NPFL120 course Multilingual Natural Language Processing:
<https://ufal.mff.cuni.cz/courses/npfl120>
- Association for Computational Linguistics (ACL) Special Interest Group on Typology (SIGTYP): <https://sigtyp.github.io/>

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+ references at <https://typo.uni-konstanz.de/rara/references/>